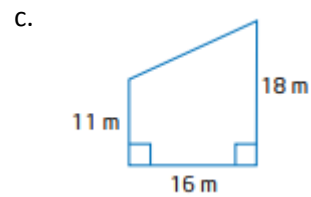
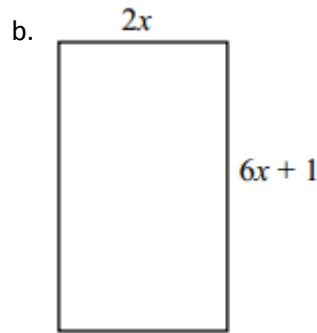
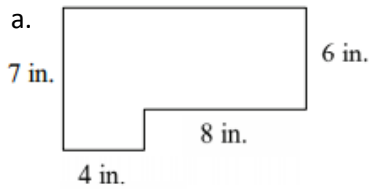


Name: _____

CP Geometry Final Exam Review

1. Find the perimeter and area of each figure below.



2. Figure A

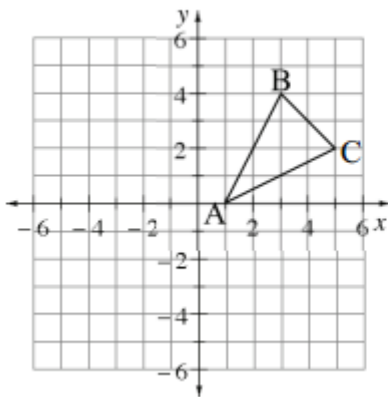


Figure B

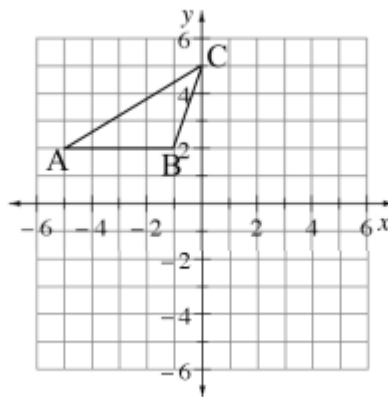
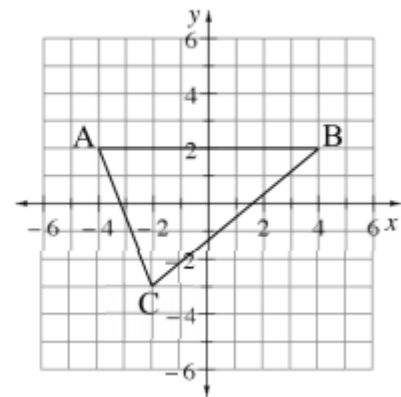


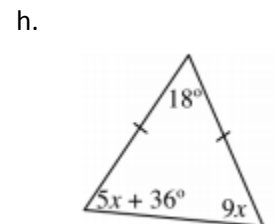
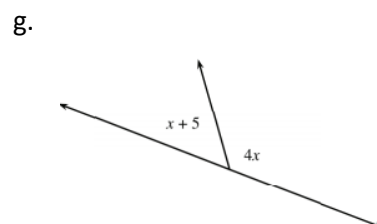
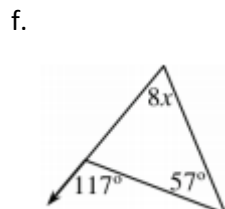
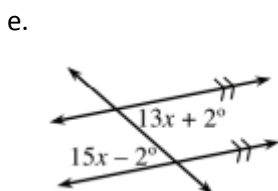
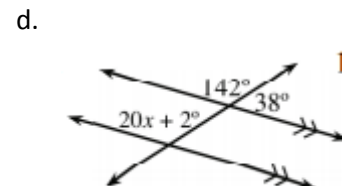
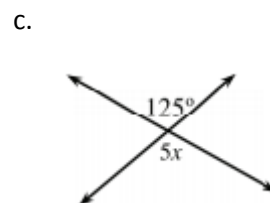
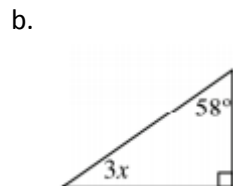
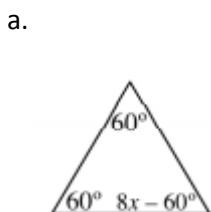
Figure C



Perform each transformation, and then give the coordinate of A'.

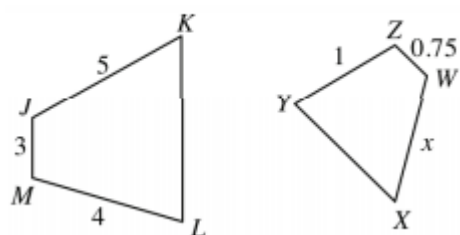
- Reflect Figure A across the x-axis. A' (,)
- Translate Figure B right 3 units and down 5 units. A' (,)
- Rotate Figure C 90 degrees clockwise about the origin. A' (,)

3. Use the geometric properties and theorems you have learned to solve for x in each diagram.

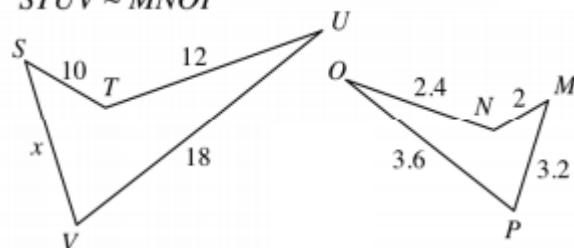


4. Solve for the missing lengths in the pairs of similar figures below.

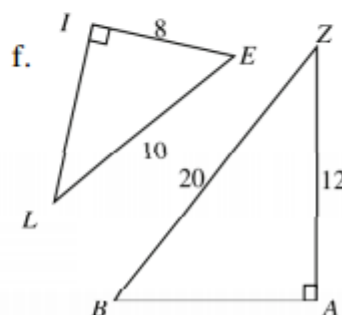
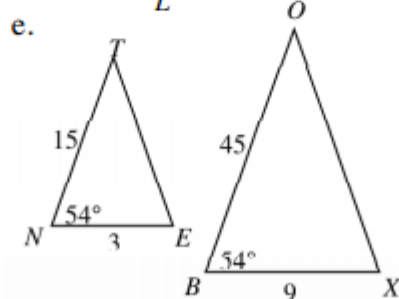
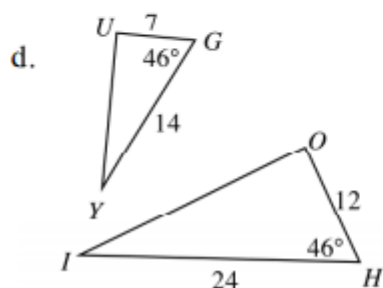
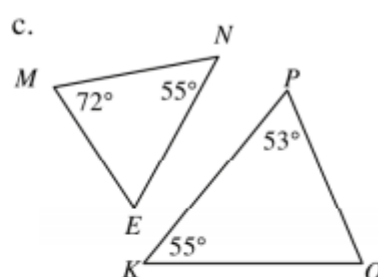
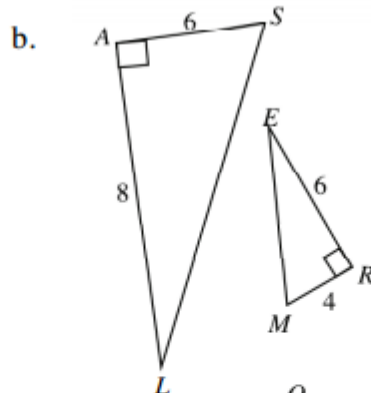
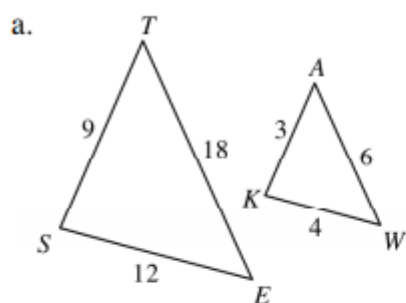
a. $JKLM \sim WXYZ$



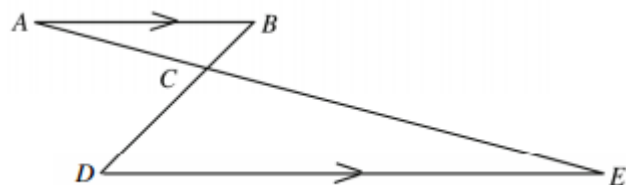
b. $STUV \sim MNOP$



5. Based on the given information, is each pair of triangles similar? If they are similar, write the similarity statement. Justify your answer completely.

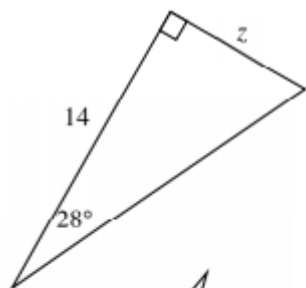


6. In the figure at right $\overline{AB} \parallel \overline{DE}$. Is $\triangle ABC$ similar to $\triangle EDC$? Use a flowchart to organize and justify your answer.

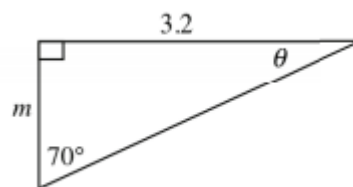


7. Set up an equation and solve for the variable(s). Round to the hundredth.

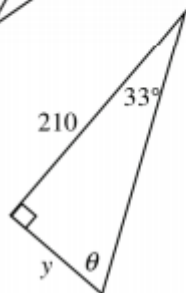
a.



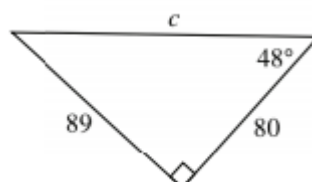
f.



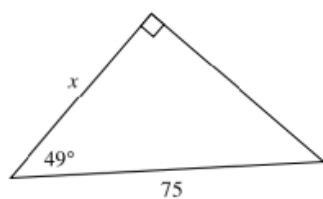
b.



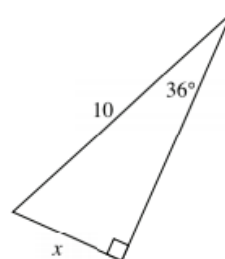
g.



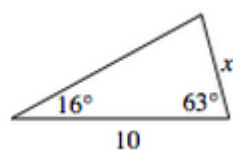
c.



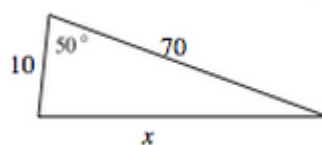
h.



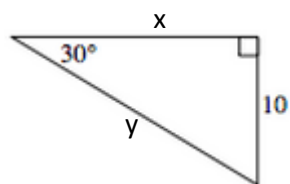
d.



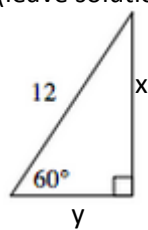
i.



e. (leave solutions in exact form)



j. (leave solutions in exact form)

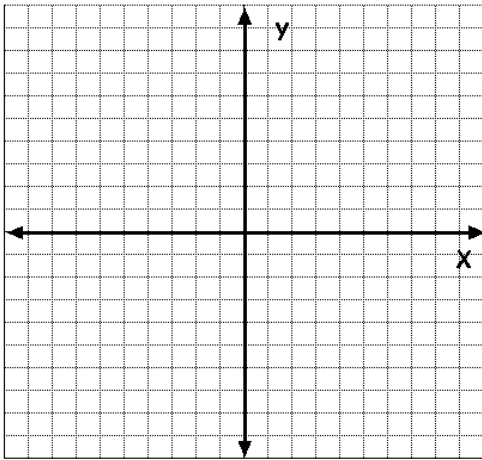


8. A ladder makes a 75° angle with the wall it is leaning against. The base of the ladder is 5 feet from the wall.

a. Draw and label a picture to represent this situation.

b. How high up the wall does the ladder reach?

9. Given the ordered pairs $A(3, -5)$ & $B(7, 9)$

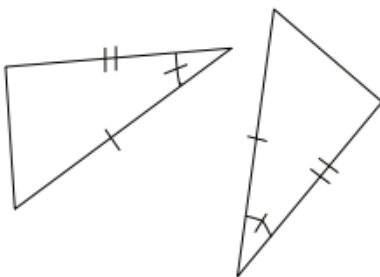


a. Find the distance between the points.

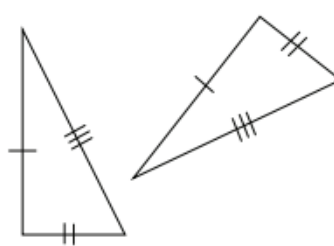
b. Find the midpoint of segment AB

10. Use your triangle congruence conjectures to decide whether or not each pair of triangles must be congruent. Base each decision on the markings, not on appearances. Justify each answer.

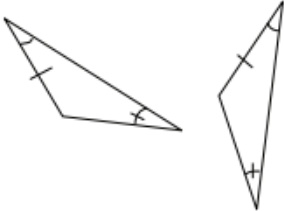
a.



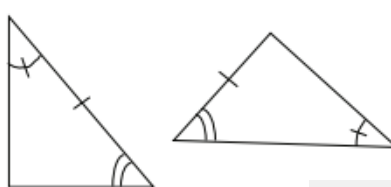
b.



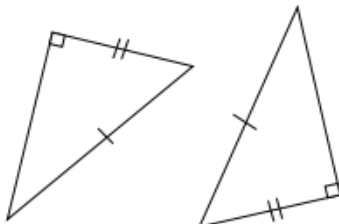
c.



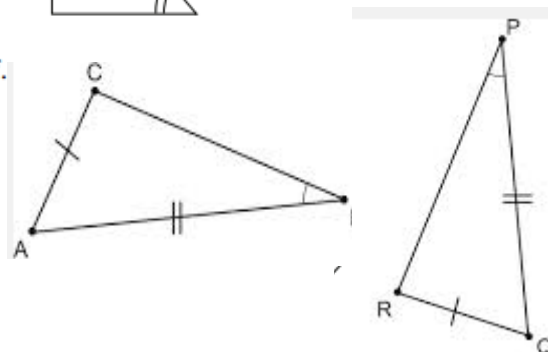
d.



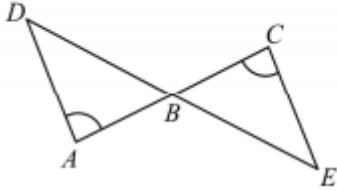
e.



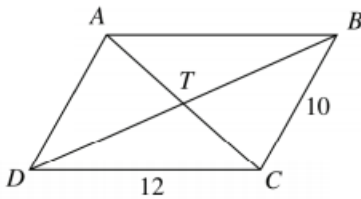
f.



11. Given: \overline{AC} bisects \overline{DE} , $\angle A \cong \angle C$
 Prove: $\overline{DA} \cong \overline{CE}$

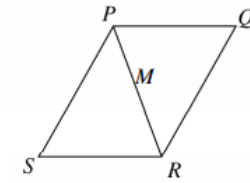


12. Given the parallelogram:



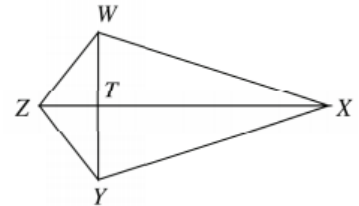
- Find the perimeter.
 If $CT = 9$, find AT .
 If $m\angle CDA = 60^\circ$, find $m\angle CBA$ and $m\angle BAD$.
 If $AT = 4x - 7$ and $CT = -x + 13$, solve for x .

13. Given the rhombus:



- If $PS = \sqrt{6}$, what is the perimeter of $PQRS$?
 If $PQ = 3x + 7$ and $QR = -x + 17$, solve for x .
 If $m\angle PSM = 22^\circ$, find $m\angle RSM$ and $m\angle SPQ$.
 If $m\angle PMQ = 4x - 5$, solve for x .

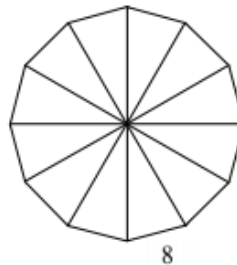
14. Given the kite:



- If $m\angle XWZ = 95^\circ$, find $m\angle XYZ$.
 If $m\angle WZY = 110^\circ$ and $m\angle WXY = 40^\circ$, find $m\angle ZWX$.
 If $WZ = 5$ and $WT = 4$, find ZT .
 If $WT = 4$, $TZ = 3$, and $TX = 10$, find the perimeter of $WXYZ$.

15. Answer the following questions (polygons):

- If the sum of the measures of the interior angles of a polygon is 2340° , how many sides does the polygon have?
- What is the measure of an exterior angle of a regular decagon?
- A regular dodecagon (12 sided polygon) has a side length of 8 units. What is its area?

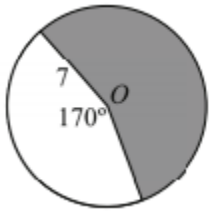


- What is the sum of the interior angles of a pentagon?
- Each angle of a regular n -gon measures 156° . How many sides does this n -gon have?
- Each exterior angle of a regular polygon measures 22.5° . How many sides does the polygon have?

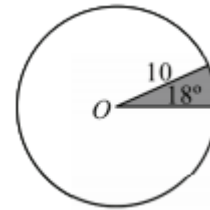
16. Answer the following questions (circles). Leave answers in exact form.

a. A circle has a radius of 8 cm. What are the circumference and the area of the circle? Leave answers in exact form.

b. Find the area of the shaded sector:



c. Find the arc length of the shaded sector.



d. Find the area of a circle inscribed in a square whose diagonal is 8 feet long.

e. The circumference of a circle is 12π inches. What is the area of the circle?

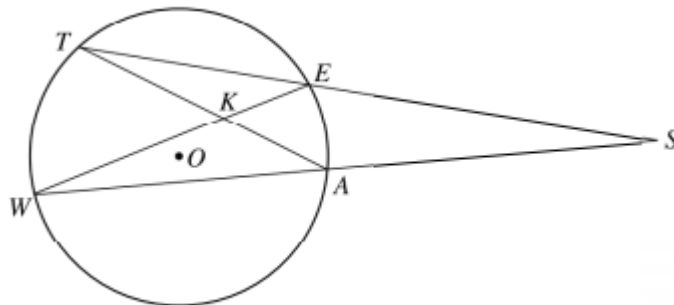
f. In $\odot O$, $m\widehat{WT} = 86^\circ$ and $m\widehat{EA} = 62^\circ$.

Find $m\angle EWA$.

Find $m\angle WET$.

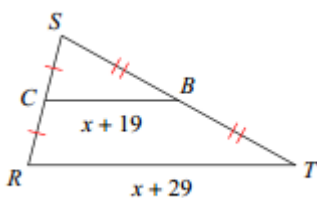
Find $m\angle WES$.

Find $m\angle WST$.



17.

a. Solve for x.



b. Find VW

